



UNIVERSITÄT
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ESSEN

Offen im Denken



Conducting systematic reviews in the field of educational technology

A workshop to get you started

ALT Conference

7 September 2022

<https://tinyurl.com/mr3bc2ye>



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Agenda

1. Presenter backgrounds
2. Benefits and challenges of reviews
3. Systematic review process
4. Generating research questions
5. Developing search strings
6. Inclusion/exclusion criteria
7. Introduction to EPPI-Reviewer, importing and screening
8. Hands-on activities
9. Q&A





RESEARCH
 Olaf Zawacki-Richter ·
 Michael Kerres · Svenja Bedenlier ·
 Melissa Bond · Katja Buntins Eds.

Systematic Reviews in Educational Research

Methodology, Perspectives and
 Application

IPPO The International
 Public Policy Observatory

Global emergency remote education in secondary schools during the COVID-19 pandemic

A SYSTEMATIC REVIEW



Presenters

Melissa Bond, Nina Bergdahl, Rosa Mendizabal-Espinosa,
 Dylan Kneale, Faye Bolan, Poppy Hull, Fjolia Ramadani

October 2021



Evidence synthesis

Example published reviews

- [Student engagement and educational technology in higher education](#)
- [Student engagement and the flipped learning approach \(K-12\)](#)
- [Artificial Intelligence in Higher Education](#)
- [Systematic Reviews in Educational Research \(co editors\)](#)
- [COVID-19 studies on teaching and learning in K-12 \(rapid review\)](#)
- [COVID-19 studies on teaching and learning in higher education](#)
- [Teaching and learning in secondary schools during COVID-19](#)

Current reviews

- Language bias in educational technology research synthesis
- Learning analytics and student engagement
- Doctoral education and motherhood
- International research collaboration in educational research



Systematic Review Methodology

Benefits

Search and retrieval skills

Exposure to many research
& writing styles

Broad understanding of a
topic

Identification of research
gaps

Challenges

Understanding of method

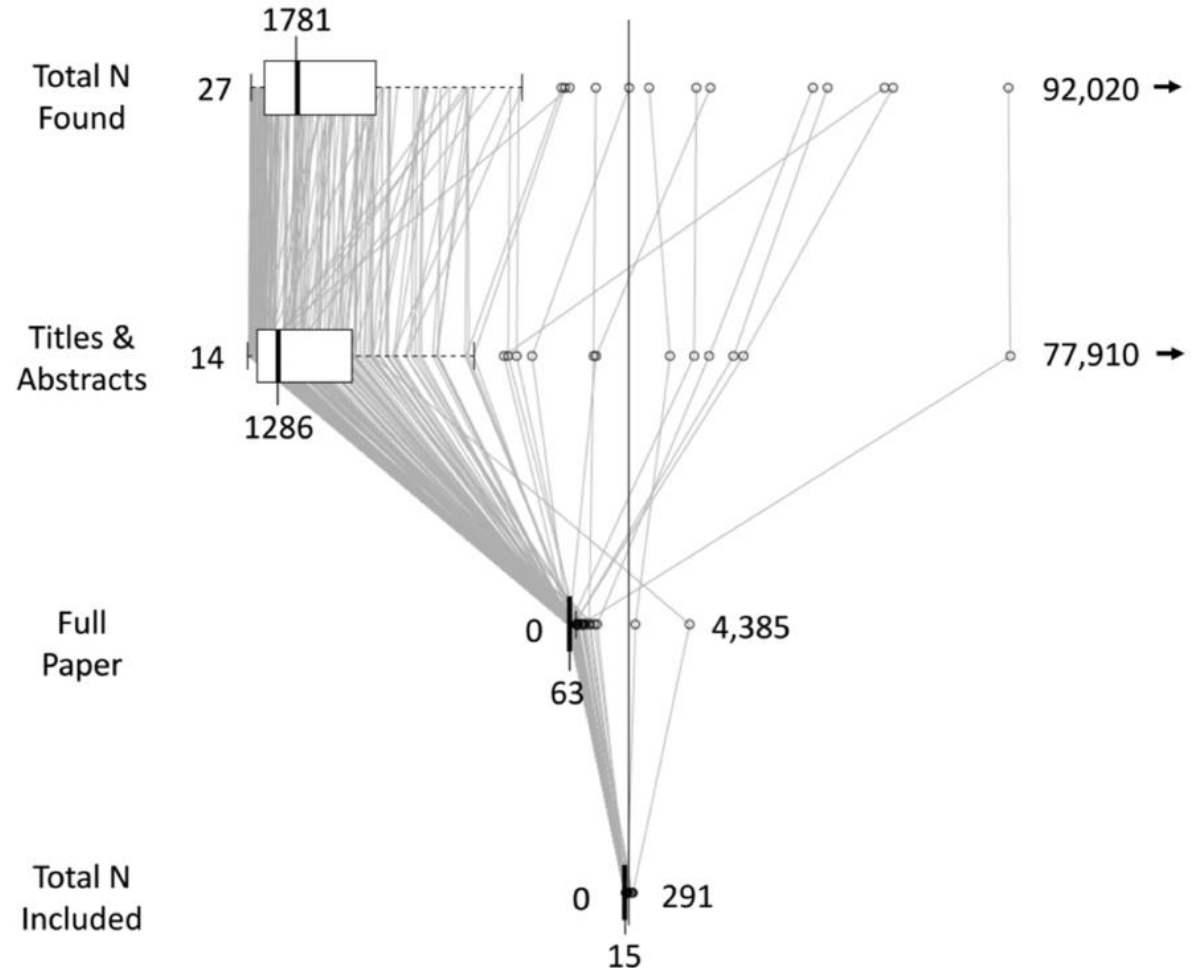
Software

Scope and retrieval

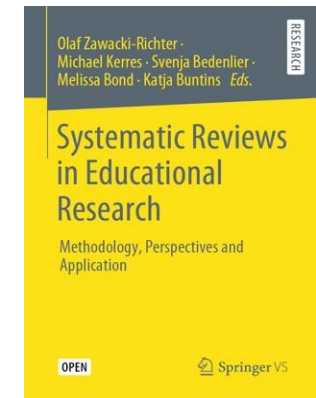
Resources (time and people)

Systematic Review Publication Time

- average of 67 (SD = 31) weeks to conduct and publish a review
- reviews that reported funding took longer (42 vs 26 weeks) and involved more team members (6.8 vs 4.8 people) than reviews that reported no funding
- final average yield rate below 3%

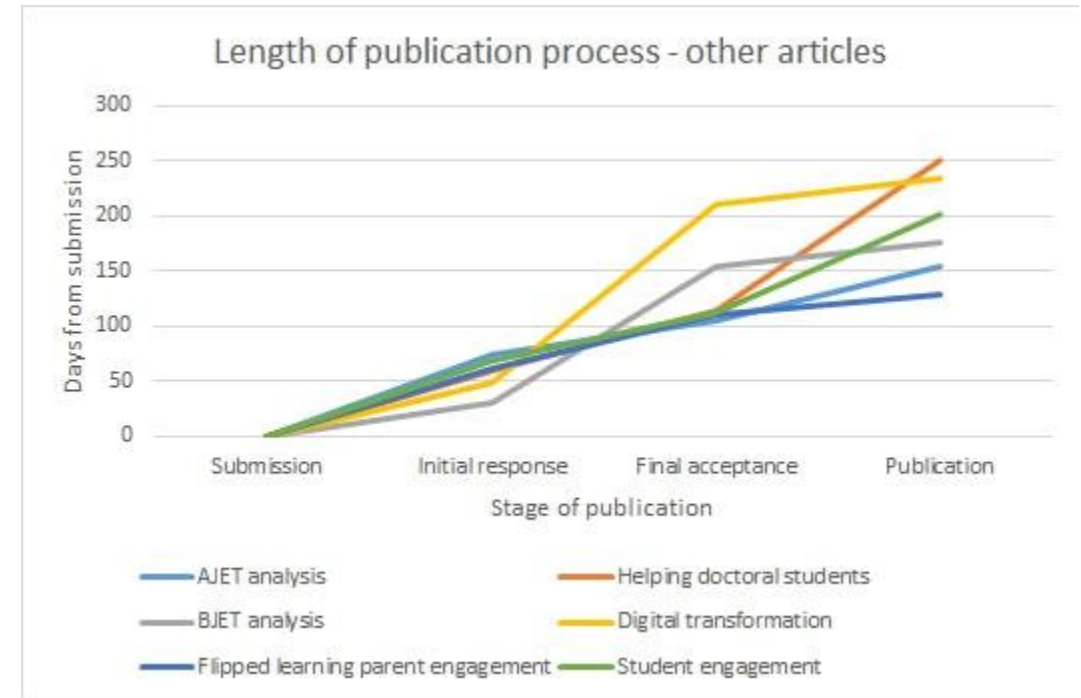
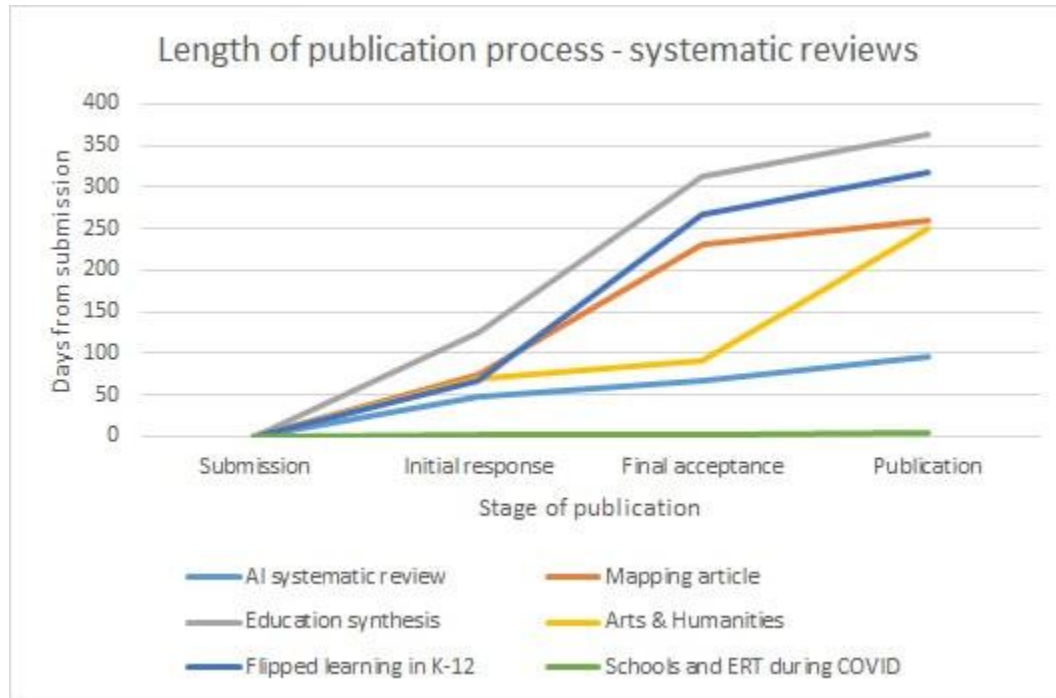


	Tai et al.	Bedenlier et al.	Lo et al.	Goagoses & Koglin	Zawacki-Richter et al.
Topic	conceptualization and measurement of student engagement	student engagement and educational technology in higher education	flipped and video-based learning in various subject areas in higher education	social goals and academic success	AI in higher education
Duration	18 months	24 months	1 – 4 months	11 months	9 months
No of team members	4 authors, 1 research assistant	5 authors, 2 research assistants	1 – 3 authors	2 authors	3 authors, 1 research assistant
Initial references	4,192	77,508	936 – 4,053	2,270	2,656
Final references	186	243	5 – 61	26	146
Yield rate	4.44 %	0.31 %	0.05 – 1.51 %	1.14 %	5.50 %
Databases searched	PsycINFO, ERIC, Education Source, and Academic Search Complete were accessed via Ebscohost, Scopus, Web of Science	ERIC, Web of Science, PsychINFO, and SCOPUS	Academic Search Complete, TOC Premier, and ERIC, PubMed, PsycINFO, CINAHL Plus, and British Nursing Index	Web of Science Core Collection, Scopus, and PsychINFO	EBSCO Education Source, Web of Science, and Scopus



Zawacki-Richter et al.
(2020)

Are systematic reviews 'harder' to get published?



	Submission to initial response	Initial response to final acceptance	Final acceptance to publication	Entire process
Minimum	3 days (outlier)	1 day	1 day	4 days
Maximum	124 days	201 days	159 days	363 days
Average	64 days (76 removing outlier)	99 days (118 removing outlier)	52 days (63 removing outlier)	215 days (257 removing outlier)

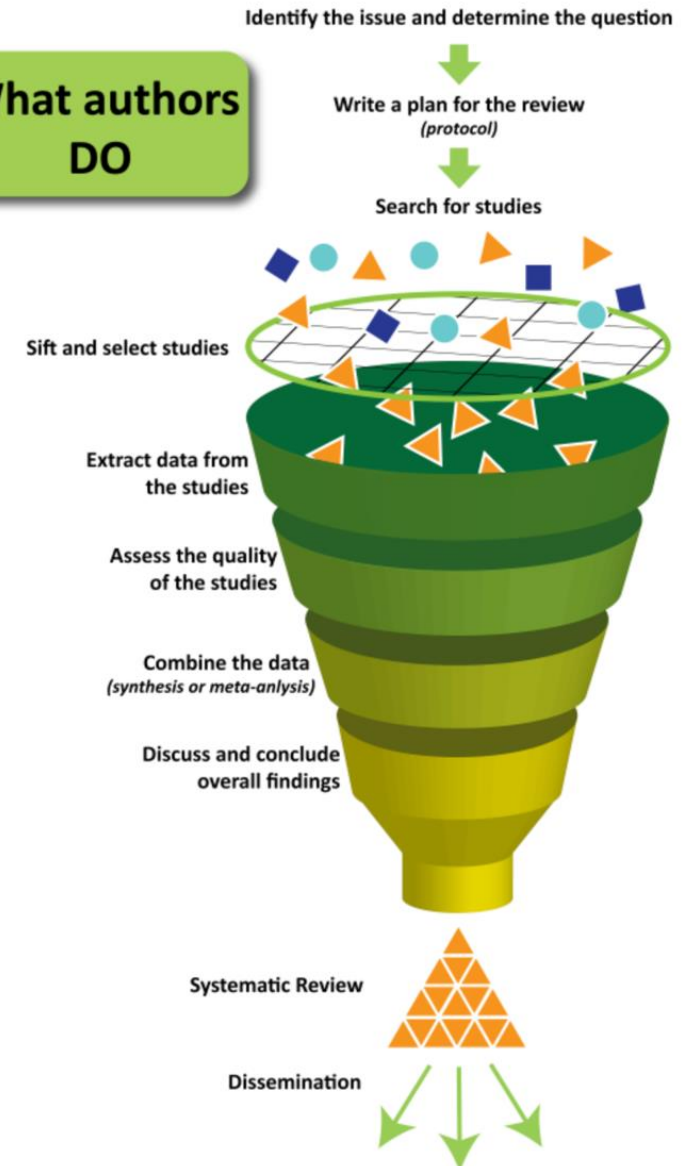
	Submission to initial response	Initial response to final acceptance	Final acceptance to publication	Entire process
Minimum	30 days	31 days	17 days	128 days
Maximum	75 days	163 days	136 days	251 days
Average	57 days	78 days	56 days	191 days

On average, 19 days longer to receive an initial response to a systematic review article, and 40 days longer to final acceptance, with the overall process taking 66 days longer on average for the entire publication process.

Systematic Review Process

- Review question and conceptual framework
- Search strategy: search string and selection criteria
- Study screening
 - ❑ Title & Abstract
- Study retrieval
- Screen on full text
- Data Extraction
- Quality assessment
- Synthesis
- Report

What authors
DO



Formulating review questions

- Identify and clearly define the question/s your review will address.
 - PICOTS framework (see Boland et al., 2017):
 - **P**opulation (e.g. the types of students)
 - **I**ntervention (e.g. the specific technology)
 - **C**omparator (e.g. compared to traditional classrooms)
 - **O**utcome/s (e.g. student engagement)
 - **T**iming (e.g. between 2012 and 2019)
 - **S**etting (e.g. Africa) OR **S**tudy design (e.g. RCTs)

Formulating review questions

1. What is the scope of the studies that have been published on flipped classrooms in medical education?
2. What is the research quality of the studies examined?
3. What are the effects of the flipped classroom, as reported by controlled studies?
 - **P**opulation: Medical education students (higher education)
 - **I**ntervention: Flipped classroom approach
 - **C**omparator: Conventional classes?
 - **O**utcome: "effects" (learning?)

Developing search strings

- Your search string combines the key concepts of your question, in order to retrieve accurate results.
- Each database is different, so it's best to begin with a master list of terms.
- According to Bramer et al. (2018), it is important to:
 - Identify example articles that can answer your question.
 - Decide which key concepts address the different elements of the question.
 - Decide which elements should be used for the best results.
 - Choose an appropriate database to begin with (e.g. WoS).
 - Use the thesaurus feature of the database to identify synonyms.

Brainstorming search terms

Key c

Free t

Learning the basic concepts of programming and its foundations is considered as a challenging task for students to figure out. It is a challenging process for lecturers to learn these concepts, as well. The current literature on programming training abounds with the examples of a wide range of methods employed. Within this context, one of the prominent approaches in programming training is flipped classroom (FC) model. This article has sought to illuminate the effect of cognitive flexibility, problem-solving skills (PSS), and **flipped learning** readiness (FLR) levels on students' programming achievements in programming training through FC model. A total of 149 freshmen computer science students studying in a state university in Turkey were recruited for this study. In this study, designed as a relational screening model, a personal form, an achievement test, and three different data collection instruments were employed to collect data. For the data analysis, structural equation modeling, a multivariate statistical analysis technique, was used to reveal a model explaining and predicting the relations between programming achievement and different variables. The findings clearly indicate that FLR is the most important predictor of the programming achievements of students in FC. Other important predictors were found as PSS and cognitive flexibility. The research model demonstrates that an increase or development in FLR, PSS, and cognitive flexibility levels in FC will enhance the achievements of students in programming.

Keywords

Author Keywords: programming training; App Inventor; flipped classroom; cognitive flexibility; problem-solving skills; university students

KeyWords Plus: COGNITIVE FLEXIBILITY; SELF-EFFICACY; LANGUAGE; STUDENTS; IMPACT; EDUCATION; DESIGN; PERSPECTIVES; ACHIEVEMENT; RELIABILITY

Cited References

[View Related Records](#)

Use in Web of Science

Web of Science Usage Count

3

Last 180 Days

3

Since 2013

[Learn more](#)

This record is from:
Web of Science Core Collection
- Social Sciences Citation Index

Author keywords/
keywords plus

Do a quick search in WoS using your concepts and write down relevant author keywords/keywords plus

Brainstorming search terms

	Concept 1	Concept 2	Concept 3	Concept 4
Key concepts	Higher education students	Science, Engineering, Technology	African context	Mobile learning
Free text terms	<ul style="list-style-type: none">• higher education• Undergraduate• Postgraduate• university	<ul style="list-style-type: none">• Science• Engineering• Technology• STEM	<ul style="list-style-type: none">• Africa	<ul style="list-style-type: none">• mobile learning• mLearning• m-learning
Author keywords/ keywords plus				mobile devices

Brainstorming search terms

Concepts	Search terms
Higher education students	“higher education” OR undergrad* OR postgrad* OR universit*
	AND
SET	science OR engineering OR technology OR “STEM”
	AND
Africa	Africa*
	AND
Mobile learning	“mobile learning” OR “mLearning” OR “m-Learning” OR “mobile device*”

Example search strings

Topic	Search terms
Artificial intelligence	"artificial intelligence" OR "machine intelligence" OR "intelligent support" OR "intelligent virtual reality" OR "chat bot*" OR "machine learning" OR "automated tutor" OR "personal tutor*" OR "intelligent agent*" OR "expert system" OR "neural network" OR "natural language processing"
AND Education level	"higher education" OR college* OR undergrad* OR graduate OR postgrad* OR "K-12" OR kindergarten* OR "corporate training*" OR "professional training*" OR "primary school*" OR "middle school*" OR "high school*" OR "elementary school*" OR "vocational education" OR "adult education"
AND Learning setting	learn* OR student*

Zawacki-Richter et al. (2019)

Example search strings

“emergency remote teaching” OR “student-centred remote teaching” OR “emergency remote education” OR “student-centered remote teaching” OR “COVID-19” OR “COVID19” OR pandemic OR “Corona virus” OR “online pivot”

AND

“K-12” OR kindergarten OR kindy OR “primary school” OR “middle school” OR “secondary school” OR school OR “high school” OR “reception” OR “R-12” OR “junior primary” OR “elementary school” OR “middle primary” OR “upper primary” OR “senior school”

NOT

“public health” OR nonpharmaceutical OR energy OR pharmaceutical OR pharmacy OR clinic* OR pathology OR telemedicine OR inflammation OR patient* OR neurolog* OR telehealth OR surgery OR universit* OR “higher education” OR postgrad* OR undergrad* OR “tertiary education” OR college

Figure 3. Search string

Bond (2020b)

Search strategy

1. Decide what types of studies and data will answer your question.

- Empirical research only?
- Grey literature?
- Both quantitative and qualitative data?

2. Which databases will you search in?*

- Web of Science
- EBSCO Host (e.g. ERIC)
- Scopus
- PsycINFO
- ProQuest
- Teacher Reference Center
- Science Direct

Inclusion/Exclusion criteria

Identify what you are and what you aren't looking for.

Inclusion Criteria	Exclusion Criteria
K-12	Higher education, further education
Teaching and learning setting (students, teachers, school leaders, administrative support structures)	No teaching and learning setting
English language	Not in English
Empirical study	Not empirical or primary research
Studies undertaken during the COVID-19 pandemic	Studies undertaken before the outbreak of COVID-19

Bond (2020b)

Inclusion criteria	Exclusion criteria
Higher education	K-12, further education
Teaching and learning setting (students, educators, administrators)	No teaching and learning setting
English, German or Spanish language	Not in English, German or Spanish
Empirical study	Not empirical or primary research
Studies undertaken during the COVID-19 pandemic	Studies undertaken before the outbreak of COVID-19
Studies published after January 2020	Published before 2020
Students, educators or administrators as unit of analysis	Unit of analysis not students, educators or administrators

Bond et al. (2021)

Record keeping log

Database searched	Web of Science
Search Set	1 and 2
Date of search	10/7/2017
Person searching	Melissa Bond and Svenja Bedenlier
Database settings	Refined by: LANGUAGES: (ENGLISH) AND DOCUMENT TYPES: (ARTICLE) Timespan: 1995-2017. Indexes: SCI-EXPANDED, SSCI, A&HCI, ESCI.
No. Of records obtained	9,517
Search string	TS=(learner* or student*) AND TS=("higher education" OR universit* OR college* OR undergrad* OR graduate OR postgrad*) AND TS=("educational technolog*" OR "learning technolog*" OR "digital learning" OR "digital education" OR "app" OR "digital technolog*" OR "digital media" OR "social media" OR "social network*" OR "social web" OR vodcast* OR podcast* OR "digital broadcasting" OR blog* OR weblog* OR "electronic publishing" OR microblog* OR "interactive whiteboard*" OR simulation* OR forum* OR "computer-mediated communication" OR "computer * network*" OR ePortfolio OR e-Portfolio OR eAssessment OR e-Assessment OR "computer-based testing" OR "computer-assisted testing" OR OER OR "open educational resource*" OR "open access" OR "open source*" OR "information and communication technolog*" OR "information technolog*" OR "social tagging" OR tablet* OR "handheld device*" OR "mobile device*" OR "smart*phone*" OR "electronic book*" OR eBook*) NOT TS=("K-12" OR kindergarten* OR "corporate training*" OR "professional training*" OR "primary school*" OR "middle school*" OR "vocational education" OR "adult education")

Lessons learned and suggestions

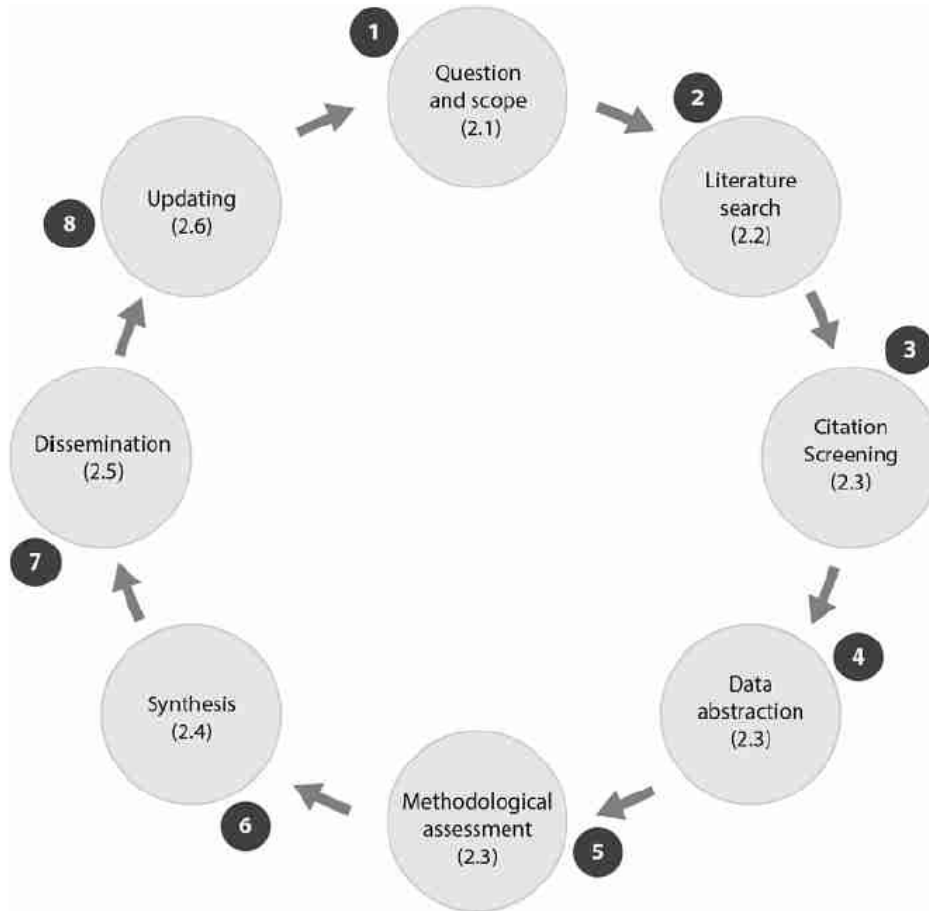


Fig. 1. This figure provides specific steps related to the rapid review process.

- Seek expert guidance if possible
 - At least one person on a team
- Keep team small for rapid reviews
- Factor in time scale
- Have a good understanding of RQ and coding scheme between you
- Use evidence synthesis software (e.g. EPPI-Reviewer) and keep all information in one place
- Consider language bias and grey literature
- Utilise machine learning where appropriate
- Include a PRISMA diagram (see Page et al., 2021)
- If planning to publish, have an outlet in mind as early as possible

EPPI-Reviewer

EPPI-Reviewer evidence synthesis software was created to support the **methodological work** conducted at the EPPI-Centre.

- Web-based - accessed from any device with an internet connection.
- Developed for all types of systematic review.
- Designed for flexibility.

EPPI-Reviewer helps by:

- keeping your review process explicit and replicable
- enabling you to work with many others in one review
- keeping your data in one place
- helping with large screening loads through priority screening
- enabling updates to your review, including through machine learning
- allowing the easy creation of interactive evidence gap maps

The screenshot displays the EPPI-Reviewer Beta interface. At the top, there are navigation tabs: 'Review home', 'References', 'Reports', 'Search & Classify', and 'Collaborate'. Below this is a 'Review Items' section with buttons for 'Import Items' and 'Manage Duplicates'. It shows a summary: 'Included: 283', 'Excluded: 6972', 'Deleted: 3207', and 'Duplicates: 3207'. The 'Coding Progress' section includes a 'Coding Tools' dropdown and a refresh icon. Under 'Screening Tools', there are two rows: 'Screening on T&A' with 1793 green checks and 0 red crosses, and 'Screening on Full Text' with 5956 green checks and 0 red crosses. Under 'Standard Tools', there is one row: 'Data extraction' with 30 green checks and 6 red crosses. Under 'Administration Tools', there are two rows: 'Allocations' with 7255 green checks and 0 red crosses, and 'File retrieval' with 438 green checks and 0 red crosses.

EPPI-Reviewer

Keeps track of all stages of the review process

ePPI REVIEWER Beta

Review home | References | Reports | Search & Classify | Collaborate

Review Items | Import Items | Manage Duplicates

Included: 283 | **Excluded:** 6972 | Deleted: 3207 | Duplicates: 3207

Coding Progress | Coding Tools | Refresh

Screening Tools:

- Screening on T&A: 1793 ✓, 0 ✗
- Screening on Full Text: 5956 ✓, 0 ✗

Standard Tools:

- Data extraction: 30 ✓, 6 ✗

Administration Tools:

- Allocations: 7255 ✓, 0 ✗
- File retrieval: 438 ✓, 0 ✗

ePPI REVIEWER Beta

Import/Manage Sources

Feedback | Help | Melissa B

Manage Sources | **Import Items** | PubMed

Source Name: Web of Science

Date of search: 07-Feb-2022

Database (optional): Web of Science

Search String (optional): "Student engagement" OR "engagement" OR "disengagement" OR "Learner engagement" (All Fields) and "Learning analytics" (All Fields) and Universit* OR "higher education" OR postgrad* OR undergrad* OR "tertiary education" OR college* OR "K-12" OR kindergarten

Source Stats: Report

- Items: 424
- Items coded: 422
- Uploaded documents: 264
- Masters of duplicates: 199
- Deleted Items: 2
- Import Date: 7 Feb 2022
- Is Deleted: false
- Duplicates: 2
- Outcomes: 0
- Import Filter: RIS

SOURCES in Review:

- Web of Science
- Scopus
- ProQuest 100
- ProQuest 200
- ProQuest 300
- ProQuest 400
- ProQuest 976
- A+ Education.ris
- SAGE 100
- SAGE 200
- SAGE 20
- Afzaal et al - Handsearched

EPPI-Reviewer

Import references via a range of methods

EPPI REVIEWER Beta **Import/Manage Sources**

Manage Sources Import Items PubMed

Step 2: Preview and import
back Hide Preview

Results: Total references = **1354**

Search Summary
Search in PubMed for "COVID-19 AND schools" returned approximately 1354 Items. Displaying first 40 Items.

Show Results from Item: 1 to Item: 40 Show

Source Name	Description	Author(s)	Item ID	Year
JMIR research protocols	The Building Educators' Skills in Adolescent Mental Health Training Program for Secondary School Educators: Protocol for a Cluster Randomized Controlled Trial.	Parker BL; Chakouch C; Subotic-Kerry M; Batterham PJ; Mackinnon A; [et al.]	e25870	2021
Pediatric obesity	Physical activity behaviour and screen time in Dutch children during the COVID-19 pandemic: Pre-, during- and post-school closures.	Ten Velde G; Lubrecht J; Arayess L; van Loo C; Hesselink M; Reijnders D; [et al.]	e12779	2021

Source Name: PubMed Search on 2/25/2021
Date of search: 25/02/2021
Database: PubMed
Search String: COVID-19 AND schools

EPPI REVIEWER Beta **Update review** Feedback Help Melissa Bond Logout

Bring up-to-date Keep up-to-date Match records Search and browse OpenAlex Admin Selected Show History Close/back

OpenAlex Dataset: 2022-03-11 Matched items: 5060

Bring review up to date (find related papers) more details

Add new search for related papers

Related Paper Searches

Description	Mode	Date from	Date run	All included	With this code	Status
Bidirectional	Bi-Citation AND Recommendations	1 Oct 2020	13 Nov 2020	<input checked="" type="checkbox"/>		Complete Checked <input type="checkbox"/> Import 2736
Citing papers	Cited by	1 Apr 2020	3 Dec 2020	<input checked="" type="checkbox"/>		Complete Checked <input type="checkbox"/> Import 1285
Citations and recs	Bi-Citation AND Recommendations	1 Dec 2020	18 Mar 2021	<input checked="" type="checkbox"/>		Complete Unchecked <input type="checkbox"/> Import 4748

EPPI-Reviewer

Screening

Add new codes

Edit codes

- Enable *auto advance*
- *Show terms* function highlights key phrases
- Use touch device
- Easy to edit and add codes or extra information

The screenshot displays the EPPI-Reviewer Beta interface. At the top left, the logo and 'Beta' version are visible. The top right shows user information: 'Melissa Bond' and a 'Logout' button. Below the logo, there are navigation controls: a plus sign (+) for adding codes, a pencil icon for editing codes, and a dropdown arrow. The main interface is titled 'Item Details' and shows 'Item 2 of 100'. There are two red boxes highlighting the 'Show terms?' checkbox (which is checked) and the 'Auto Advance?' checkbox (which is unchecked). The left sidebar contains a list of exclusion criteria under the heading 'Screen on Title and Abstract', including options like 'EXCLUDE not in English', 'EXCLUDE duplicate', 'EXCLUDE not K-12', 'EXCLUDE not primary research', 'EXCLUDE not empirical', 'EXCLUDE not related to COVID-19', and 'EXCLUDE no education setting'. The 'INCLUDE on title & abstract' option is checked. Below this, there are sections for 'Screen on Full Text', 'Allocations', 'Data Extraction', and 'Data Extraction 2'. The main viewing area shows the document's reference type as 'Journal, Article' and the title: 'Adapting to online teaching during COVID-19 school closure: teacher education and teacher competence effects among early career teachers in Germany'. The abstract text is visible, with key terms like 'online teaching', 'COVID-19', 'school', and 'teachers' highlighted in green. The author(s) are listed as 'Konig J Jager-Biela, DJ Glutsch, N;'. At the bottom right, there are buttons for 'Feedback', 'Help', and 'Close/back'.

EPPI-Reviewer

Data extraction

- View PDFs within item records
- Highlight text and assign to codes
- Highlighted quotes appear in reports
- Produce reports with quotes for just one code

The screenshot displays the EPPI-Reviewer Beta interface. On the left, a sidebar lists various codes under the heading 'Family'. The 'Professional/personal development' code is selected and highlighted in blue. The main area shows the 'Item Details' for 'Item 1 of 100'. The currently selected code is 'Professional/personal development'. The main content area displays a PDF document with the following text:

Prioritizing equity for special education students, students without access and English learners

District leaders are aware of the geographical and socioeconomic barriers Austin students face including access to school-provided meals and the internet to engage in distance learning. So, 14 different sites across the city were established for lunch and breakfast pick-ups staffed by paraprofessionals and non-instructional staff with financial support from Hormel Foods. For those students without internet access, 5–12 building principals worked with families to identify free local internet services both in town and in farming neighborhoods. The Hormel Foundation also collaborated with the Austin Public Library and APS' district tech services department to issue 200 Wi-Fi hotspots to students in Austin's public and private schools at the end of April.

APS' first priorities were equity and accessibility for students that need additional learning support. Technology coaches continually work with learning support specialists on identifying and making sure teachers use accessibility tools (closed captioning, text-to-speech and speech-to-text). Special education staff use individual and small group environments in synchronous video calls to assess students' academics and continue social skills development. For elementary students, principals put devices in the hands of special education and EL students first. Technology coaches worked quickly to onboard families who had not previously connected digitally to communication apps and distributed classroom iPads and laptops to families who indicated they did not have access to a device at home.

In Austin, the EL students are at risk for great loss in terms of personal connection with teachers because of the added barrier of language. To counter this risk, APS' bevy of success

Interactive evidence gap maps

- Created for each research question
- Freely available open access
- Filterable, searchable
- Can download references
- Direct links to studies
- Can assist synthesis

What are the characteristics of, n learning ir
An interactive evidence gap map by Dr Melissa Bo COVID-

Filters: Hide Headers, Fullscreen, About

Study Characteristics

- Africa
- Asia
- Europe
- Oceania
- Middle East
- North America
- South America
- Teachers
- Students
- Parents
- School Leaders
- District administrat...
- Learning designers
- Government officials
- Kindergarten
- Primary/Elementar...
- Middle School
- High School
- Special needs
- Unclear
- Higher Education
- Research focus and ...
- Teacher digital co...
- School-home conn...
- Digital infrastructure
- Administrative resp...

Research focus and approach

Study focus	Africa	Asia
Teacher digital competence	●	
School-home connection		
Digital infrastructure	●	
Administrative response	●	

3 Records

Group by: None

Delivering High School Chemistry ...
Okebukola Peter A ; Suwadu Bugoma ; ...
2020

Emergency Online Teaching in Eco...
Molise H ; Dube B ;
2020

Schooling disrupted, schooling ret...
Reimers F ; Schleicher A ;
2020

Emergency Online Teaching in Economic and Management Sciences Necessitated by the COVID-19 Pandemic: The Need for Healthy Relations in a Rural Schooling Context

"To prevent the spread of the COVID-19 virus, the pandemic has necessitated new ways of teaching that favour online learning. Emergency online teaching (EOT) was adopted to address various challenges, such as a lack of competence in teachers for teaching online using digital learning management systems, shortcomings regarding internet connectivity, and resistance by teachers to using EOT. Relational leadership couched the study, with an emphasis on constructing positive relationships to forge sustainable learning conditions. A Whatsapp group was created to facilitate focus group discussions. The study found that EOT and learning is desirable and doable, even though various challenges need to be overcome, especially in rural schools. Therefore, there is a need for teachers to adjust their subject teaching plans, assessment details and teaching materials, and to adopt new ways of interacting with learners through EOT during the COVID-19 pandemic. The argument of the paper is that, in the context of COVID-19, education stakeholders should invest in healthy relationships to facilitate the adoption of EOT, in order to construct conducive learning conditions in rural contexts."

<https://doi.org/10.26803/ijlter.19.6.23>

Authors: Molise H ; Dube B ;

Download report (PDF)



This report is a product of the IPPO project – [please see the project page for more](#)

Interactive evidence gap map



Database of included studies



Global emergency remote education in secondary schools during the COVID-19 pandemic

What do we want to know?

The worldwide shift to emergency remote education in 2020 as a result of the COVID-19 pandemic impacted billions of students and teachers. A range of teaching by schools as a result, despite confusing and sometimes contradictory systemic issues such as equity and access impacting heavily on

In order to gain insight into how emergency remote education was experienced by students, parents and educators, a systematic review was conducted to synthesise research evidence. The research questions were:

1. In what ways did emergency remote education affect motivated students?
2. How did research report on emerging online assessment practices during the pandemic?
3. Are new approaches to peer collaboration emerging and what are they?
4. How did online learning in secondary schools affect parent engagement?
5. What emerging uses of online and blended learning approaches continue to be implemented in future?

Who wants to know?

The ESRC-funded [International Public Policy Observatory \(IPPO\)](#) response to roundtable meetings discussing the current situation. This review should be useful to a range of communities including policy makers, teachers and students and their families.

What did we find?

Findings reveal that self-regulation and understanding were the most frequently reported indicators of student engagement, with online assessment tools, learning management systems, live synchronous lessons with peer and teacher interaction, and teacher-made videos considered particularly engaging. Social isolation was the most frequently reported indicator of disengagement, characterised by poor attendance in live lessons, a lack of opportunities to seek help with challenges and difficulties facilitating peer collaboration.

Global emergency remote education in secondary schools during the COVID-19 pandemic

A systematic review

Introduction

[View more](#)

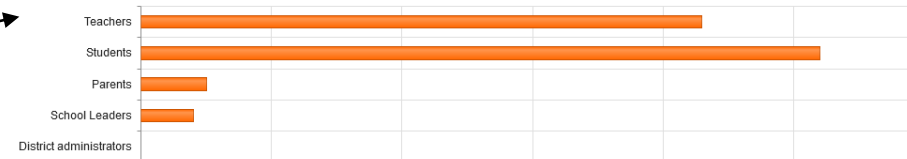
This web database was created by [Dr Melissa Bond](#) for the systematic review entitled 'Global emergency remote education in secondary schooling during COVID-19', soon to be published open access and authored by Dr Melissa Bond, Dr Nina Bergdahl, Dr Rosa Mendizabal-Espínosa, Dr Dylan Kneale, Faye Bolan, Poppy Hull, and Fjolla Ramadani.

This database was created using [EPPI-Visualiser](#), in conjunction with [EPPI-Reviewer](#).

Abstract: The worldwide shift to emergency remote education in 2020, as a result of the COVID-19 pandemic, impacted billions of students and teachers. A range of teaching and learning strategies were employed by schools as a result, despite confusing and sometimes contradictory guidance, with systemic issues such as equity and access impacting heavily. In light of the findings of a recent IPPO [evidence snapshot](#) and [roundtable event](#), and in order to gain further insight into how emergency remote education was experienced by secondary school students, parents and educators, a systematic review was conducted.

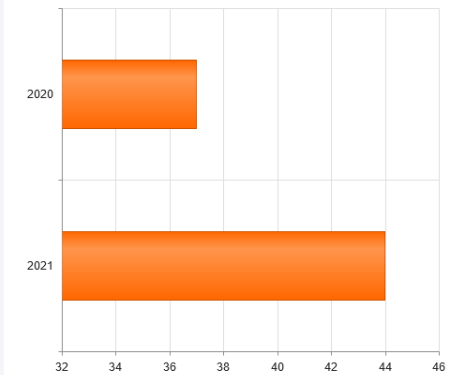
Frequencies: Participant Focus

[Table](#)
[Bar](#)
[Pie](#)
[Table \(new page\)](#)
[Save](#)



Publications by year

[Bar](#)
[Table](#)
[Save](#)



Maps(3D) & Crosstabs(2D)

[Get Map](#)
[Get Crosstab](#)

Selected nodes: [Participant Focus](#)

<https://eppi.ioe.ac.uk/cms/Default.aspx?tabid=3847>

EPPI-Reviewer

Sign up for an account

If you don't already have an EPPI-Reviewer account, please sign up for a free trial account here > <https://eppi.ioe.ac.uk/cms/Default.aspx?tabid=2935>

Account and Review Manager

Status: Status: Normal.

If you already have an EPPI-Reviewer account please click on **Login**.

Login Access an existing account

[Forgot your Password?](#) [Forgot your Username?](#) [Need to activate your account?](#)

If you do not have an EPPI-Reviewer account you can create one by clicking on **New account**.

New account Create a new account

EPPI-Reviewer

Logging in



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EPPI-Reviewer Web (Beta)

Username:



Password:



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to Create your
Account.

Visit the [EPPI-Reviewer Gateway](#)

for Account and Review Management, Documentation, Support and the RIS export utility.

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EPPI-Reviewer

Create a new review



Melissa Bond

Logout

Feedback

Help

Support...

Welcome to EPPI-Reviewer Web (beta).

This **Beta Application** provides an alternative interface to many common functionalities available in **EPPI-Reviewer 4**.

It works in modern web browsers and no longer requires the Silverlight plugin so it can be used on different devices such as desktops, laptops and tablets. Since it operates on the same data as EPPI-Reviewer 4, you can work on the same review using *either* application.

Although we are continuously adding more functionality to this version you may still need to use the older Silverlight application for some functions, until they are added to the new version.

We encourage all users to provide feedback and suggestions by contacting EPPIsupport@ucl.ac.uk.



New Review Name

Create Review

Cancel

EPPI-Reviewer

Import coding tools

EPPI REVIEWER Beta

Melissa Bond Logout

Feedback Help Support...

Review home References Reports Search & Classify Collaborate

Review Items Import Items Manage Duplicates

Included: 0 Excluded: 0 Deleted: 0 Duplicates: 0

My Reviews ↓ My Work ↓ Sources ↓

Coding Progress Coding Tools

Your account expires on: 31 Dec 2022

EPPI REVIEWER Beta

Melissa Bond Logout

Feedback Help Support...

Import Coding Tool(s) Add Coding Tool

Coding Tool(s) in Review: No Coding Tools in review. Close/back

To Edit a node in the code tree, please select the desired node in the right-hand side tree.

Below you will find a list of Review Templates along with a description. Each template consists of a number of Coding Tools.

Please pick One Option:

Standard Review

Minimal Review

Manually pick from Public codesets...

Manually pick from your own codesets...

Description:

This template contains minimal selection of preconfigured but mostly empty codesets. If you know your review will not follow the typical workflow, this is the template to pick. You will be able to edit the imported Codesets, remove the unwanted ones and/or add more. Contains 3 Coding Tools...

Cancel

Proceed →

EPPI-Reviewer

Managing duplicates

The screenshot illustrates the workflow for managing duplicates in EPPI-Reviewer. It shows the main navigation bar with 'Review home', 'References', 'Reports', 'Search & Classify', and 'Collaborate'. The 'Review Items' section includes 'Import Items' and 'Manage Duplicates' (highlighted with a red box). Below this, it shows 'Included: 674', 'Excluded: 0', and 'Deleted: 0'. The 'Coding Progress' section includes 'Coding Tools' and a refresh icon. A yellow warning banner states: 'Please wait (up to 5 minutes) looking for new duplicates'. The 'Duplications' section includes 'Refresh', 'Get New Duplicates' (highlighted with a red box), 'Mark Automatically' (highlighted with a red box), and 'More...'. A table of 'Duplications' is shown with columns for 'Done?', 'ID', and 'Short Title'. The first row is highlighted in blue. A detailed view of a duplicate pair is shown on the right, with 'Mark Automatically' (highlighted with a red box) and 'Marked As:' options: 'A Duplicate', 'Not a Duplicate', and 'Mark as Master'.

EPPI REVIEWER Beta

Review home | References | Reports | Search & Classify | Collaborate

Review Items | Import Items | **Manage Duplicates**

Included: 674 | Excluded: 0 | Deleted: 0

Coding Progress | Coding Tools |

Refresh | **Get New Duplicates** | Mark Automatically | More... | 0 groups of possible duplicates

Please wait (up to 5 minutes) looking for new duplicates

Duplications

Tools... | Refresh | Get New Duplicates | **Mark Automatically** | More... | 178 groups of possible duplicates loaded (0 marked as completed)

Done?	ID	Short Title
false	7217771	Abbasi (2020)
false	7217772	Adams (2020)
false	7217773	Addae (2020)
false	7217774	Aguilera (2020)
false	7217775	Almutairi (2020)
false	7217776	Altavilla (2020)
false	7217777	Andersen (2020)
false	7217778	Anderson (2020)
false	7217779	Armitage (2020)
false	7217780	Ashby (2020)
false	7217781	Asif (2020)

Master Item ID: 75129898 | Coded count: 0 | Uploaded Docs: 0

Pub Type: Journal, Article | Date: 2020

Authors(s): Abbasi J ;

Title: Anthony Fauci, MD, on COVID-19 Vaccines, Schools, and Larry Kramer

Pub Name: JAMA - Journal of the American Medical Association

Item ID: 75130586 | Coded count: 0 | Uploaded Docs: 0

Pub Type: Journal, Article | Similarity: 1.000 | Date: 2020 July

Authors(s): Abbasi J ;

Title: Anthony Fauci, MD, on COVID-19 Vaccines, Schools, and Larry Kramer

Pub Name: JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

Marked As: Not checked | | |

EPPI-Reviewer

Managing duplicates

The screenshot shows the top navigation bar of the EPPI-Reviewer interface. The 'Tools...' button is highlighted with a red box. Below it, the '1st To-Do' dropdown menu is also highlighted with a red box. Other visible elements include 'Auto Advance: ', 'Paging: 1000', 'Refresh', and 'Get New Duplicates' buttons.

Refresh Get New Duplicates Mark Automatically ▾ More... 178 groups of possible duplicates loaded (154 marked as completed). Close/back

Master Item ID:	75129937	Coded count:	0	Uploaded Docs:	0	Pages:	
Pub Type:	Journal, Article	Date:	2020	Source:	Scopus.txt		
Authors(s):	Burgin S R; Sakamaki Y ; Tsuji M ; Watson O ; Heidrick Z ; Chitwood T ; Benamara M ; Martin E M; Childress M ; Beyzavi M H;						
Title:	Using a Faculty-Developed Documentary-Style Film to Communicate Authentic Chemistry Research to a High School Audience						
Pub Name:	Journal of Chemical Education	DOI:	10.1021/acs.jchemed.0c00376 ↻				
Item ID:	75130623	Coded count:	0	Uploaded Docs:	0	Pages:	2351-2355
Pub Type:	Journal, Article	Similarity:	0.7608	Date:	2020 August	Source:	Web of Science.txt
Authors(s):	Burgin SR Sakamaki; Y Tsuji ; M Watson ; O Heidrick ;						
Title:	Using a Faculty-Developed Documentary-Style Film to Communicate Authentic Chemistry Research to a High School Audience						
Pub Name:	JOURNAL OF CHEMICAL EDUCATION	DOI:	10.1021/acs.jchemed.0c00376 ↻				
Marked As:	Not checked →	<input type="checkbox"/> A Duplicate	<input type="checkbox"/> Not a Duplicate	<input type="button" value="Mark as Master"/>			

EPPI-Reviewer

Assigning codes

Review home **References** Reports Search & Classify Collaborate

Import Items Cluster Coding Report In/Exclude Export to RIS Run Reports

First Previous Page: 1 of 5 Next Last Showing 100 items of 495 Enhanced selection is: On

Showing Included Items

<input type="checkbox"/>	ID	Short title↑	Title	Year
<input type="checkbox"/>	75130581	[Anonymous] (2020)	Pandemic school closures: risks and opportunities	2020
<input type="checkbox"/>	75130582	[Anonymous] (2020)	COVID-19 schools guidance	2020
<input type="checkbox"/>	75130585	A Scoping Review of... (Rodriguez)	A Scoping Review of Literature About Mental Health and Well-Being Among Immigrant Communities in the United States	2020
<input type="checkbox"/>	75129898	Abbasi (2020)	Anthony Fauci, MD, on COVID-19 Vaccines, Schools, and Larry Kramer	2020



Review home References **Reports** Search & Classify Collaborate

Edit Tools With this Code **Assign Code**

Screening

2 Allocations and Admin

3 Allocations

Other Admin Codes

Data Extraction

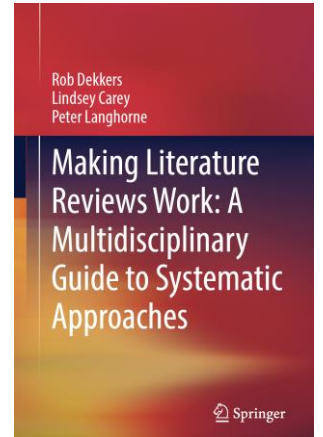
Code description:
Add sub-branches for each new batch of Allocations...

1

<input checked="" type="checkbox"/>	ID	Short title↑	Title	Year
<input checked="" type="checkbox"/>	75130581	[Anonymous] (2020)	Pandemic school closures: risks and opportunities	2020

Further Resources

- [Frequently Asked Questions](#)
- [EPPI-Reviewer homepage](#) – sign up to a free one month trial.
- [EPPI-Mapper information](#) – includes links to example maps.
- [EPPI-Mapper app](#)
- [EPPI-Reviewer instructional video](#) on interactive evidence gap maps.
- [EPPI-Reviewer instructional video](#) on how to create an EGM using EPPI-Mapper.
- [Mapping the field of emergency remote teaching in higher education due to COVID-19](#)
- [Schools and emergency remote education during the COVID-19 pandemic](#) – information and interactive evidence gap maps.
- [Schools and ERE during the COVID-19 pandemic](#) – rapid review article.
- Reach out for hands-on workshops, research collaboration or assistance with conducting reviews - <http://drmelissabond.weebly.com/>



Dekkers at al. (2022)

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